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ABSTRACT

Thirty-two programs across the country were selected to participate in the National Head Start/Public School Early Childhood Transition Project. The project's mission was to replicate the Head Start delivery model within the public school in order to facilitate a smooth transition for children and families. Project effectiveness was examined on the four dimensions of education, family involvement, social service, and wellness. Evaluation was conducted on the four levels of child, family, school, and community. Data were gathered using quantitative and qualitative methods. The Assessment Profile for Early Childhood Programs--Research Version and A Developmentally Appropriate Template (ADAPT) were used. Results suggested that: (1) target classrooms are exhibiting developmentally appropriate practices; (2) support for developmentally appropriate practice includes having the appropriate materials available, engaging students in a variety of tasks and projects, and eliciting children's input on the instructional cycle; (3) target classrooms had warm, purposeful learning environments; and (4) traditional rows of desks inhibited student interaction. Contains 14 references and 4 appendices of evaluation materials. (JW)

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Documenting Developmentally Appropriate Practice in Early Childhood Classrooms

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Documenting Developmentally Appropriate Practice in Early Childhood Classrooms

The Context of the Study:

Under the auspices of the U. S. Department of Health and Human Services, in 1991, thirty two sites across the nation were selected to participate in the National Head Start/Public School Early Childhood Transition Demonstration Project. This project has as its mission the replication of the Head Start delivery model within the public school domain as a means of facilitating a seamless transition for children and families. The Transition Project seeks to demonstrate and evaluate the implementation of this program across four domains (education, family involvement, social service, and wellness) and four levels (child, family, school, and community).

As part of its commitment to the national study, each individual Project has forged a partnership among a Head Start Agency, a local educational agency, and an evaluation research team. The initial planning year afforded the partners an opportunity to develop a unique, community-based transition program and evaluation. Two randomly selected cohort groups, comprised of children and their families originally resident in the designated service area of the program, are followed from prekindergarten through grade 3. Currently, Cohort 1 is completing grade 2 while Cohort 2 is in grade 1. A national core data set and an individualized local plan guide the evaluation with major data collection points set in the fall and spring of the kindergarten year and each subsequent spring.

Schools from three contiguous school districts, located approximately forty miles northwest of Chicago, comprise the Illinois site. Located in urban, suburban, and rural areas, they function independently, both politically and economically, from the greater Chicago metropolitan area. The heterogeneous population in the community is reflected in study; the demographics of participating schools include: Caucasian, 61%; Latino, 24%; African American, 12%; and Asian, 3%. Low income students average 17% across these schools and the annual mobility rate is 28%.

Children from the four Head Start Centers within these communities are enrolled in the seventeen study schools. The eight target or demonstration schools receive transition services while the nine comparison buildings do not. The administration of the Project is the responsibility of the grantee which serves as the fiscal agent. In the case of Illinois, the grantee is one of the school districts; the evaluation is conducted by co-principal investigators representing two research organizations.

This paper focuses on one facet of the educational component of the Project, namely, the use of developmentally appropriate practice by teachers. In particular, it seeks to answer the question: to what extent are classrooms implementing these practices throughout the early childhood years? Classroom observation, the methodology reported in this paper, is one means of evaluating this component.

Theoretical Framework:

The theoretical underpinnings of developmentally appropriate practice lie with developmental psychology and the constructivist school of child development. Together they posit that development results from the child constructing meaning through interaction with the environment. The seminal works of Piaget and Vygotsky provide the epistemological roots of this construct, building upon the experientialist tradition of Dewey in the early twentieth century.

In the history of educational thought, John Dewey (1917) introduced the notion of child-centered learning, whereby activities are based on personal need and interest rather than being externally imposed upon children. The development of knowledge resides in actively participating in activities with a social purpose. Axiomatically, instructional methods congruent with this theory reflect the processes and interrelationships of society as a whole and reach outside of school to the greater community (McNally, 1977).

A Piagetian perspective of instructional methodology recognizes the particular stage of reasoning a child has reached, realizes that a child literally constructs his own intelligence or logical structures in order to interact with the environment, and encourages the development of these structures or schemas within experiential contexts. Considerable importance is also attached to interpersonal interaction that is grounded in the socialization and the cognitive development of the child. The role of the teacher is to decipher what the child knows and how the child reasons in order to build upon a child's personal growth (Kamii, 1973).

According to Piaget, cognitive structures are self-motivating with optimal development occurring when accommodation and assimilation are in dynamic balance. This principle of moderate novelty or interest is analogous to Vygotsky's zone of proximal development which proposes that each child, in any domain, has an actual or independent developmental level and immediate potential for development within that domain that is realized under adult guidance or in collaboration with more capable peers (Tudge, 1990).

Another tenet endemic to developmental psychology, expressed by Vygotsky, is the child's capacity for self-regulation, in which the child's capacity to plan, guide, and monitor his behavior from within and to change flexibly according to circumstances is recognized (Diaz, Neal, & Amaya-Williams, 1990). In relation to the classroom, a teacher's role is that of a scaffold and a mediator, providing interactional support in order to maximize a child's growth in functioning within a social context (Clay & Cazden, 1990; Goodman & Goodman, 1990). Productive interactions thus occur in goal-directed activity settings that involve contributions and discoveries by learners as well as assistance through facilitation by an expert collaborator (Gallimore & Tharp, 1990).

One of the most fundamental insights of Deweyan, Piagetian, and Vygotskian theory for education is that the child is the architect of his own growth. Acceptance of this view of development implies child centered learning with the teacher as the facilitator of the process. These kernels form the basis for developmentally appropriate practice of the 1980's. Ironically, almost two decades ago, McNally cogently applied these tenets in describing an Integrated Day program in Australia.

> The integrated day is a school day which is combined into a whole and has a minimum of timetabling and covers the whole of the six years of the infants-primary school. The natural flow of activity, imagination, thought and learning which is in itself a continuous process is not interrupted by artificial breaks every 30 or 40 minutes, nor is it constrained by subject barriers. The child is encouraged to commit himself completely to the work he has chosen. If he desires, he is given time to pursue something in depth even though this may take considerable time... (p. 96).

In its practical application, developmentally appropriate practice has been widely used to describe classrooms in early childhood programs. In its totality, it seeks congruence among a young child's stages of development, his/her exposure to educational opportunities, and his/her involvement in learning. Development is described relative to a child's age and his/her individual milestones, taking into consideration family and cultural backgrounds. The major curricular tenets of developmentally appropriate practice emphasize: 1. learning as an interactive process; 2. concrete, real learning activities and materials; 3. student choice based on personal interests; and 4. exploration of the learning environment through active involvement (Bredekamp, 1987).

These principles are encumbered in the first national goal formalized in the Educate America Act of 1994, "All disadvantaged

and disabled children will have access to high quality and developmentally appropriate preschool programs that help prepare children for school." Katz (1992) defends the position that it is incumbent upon schools to redouble their efforts and be responsive to the wide range of experiences, backgrounds, and needs of children rather than placing the sole responsibility of "readiness" on families.

Developmentally appropriate practice, previously emphasized at the lower end of early childhood education, has recently been extended upwardly to include children through age eight. A 1994 position statement by the National Association for the Education of Young Children reiterates the guiding principles and their applicability to the components outlined in the appropriate education in the primary grades. Likewise, the National Association of Elementary School Principals has issued standards and indicators for quality programs for young children. Although this trend or spiral has been recognized by the educational community, there has been scant research on the implementation of developmentally appropriate practice in primary classrooms.

Methods:

The adoption of developmentally appropriate practice by teachers in target schools serves as the centerpiece of the educational component of the Project. One methodology for evaluating the extent of its implementation, both at the national and local levels, is classroom observation. Observation by trained professionals, familiar with the classroom setting, provides a direct, naturalistic, and valid means of data gathering.

In the spring of 1994 (Year 3 of the study), 69 Head Start, kindergarten, and grade 1 classrooms were observed by the Illinois evaluators in the seventeen study schools and four Head Start Centers (see Table 1 below for a breakdown of the sample). Administrators and teachers had full knowledge of their respective roles in the evaluation. Schedules were arranged in advance at the convenience of the participants. Approximately one day was devoted to each school with a minimum of one hour spent in each classroom.

Table 1
Number of Classrooms Observed, Spring 1994

Condition	Head Start	Target	Comparison	Total
Classrooms	7	31	31	69
Schools/Centers	4	8	9	21

Unobtrusive methods are utilized in the collection of classroom observation data. Observations are conducted within the context of natural interaction among teachers, children, and the learning environment. Confidentiality is strictly maintained; teacher and school codes are used in lieu of names and it is made clear that classrooms, not teachers, are being evaluated.

Data Sources:

Qualitative and quantitative data gathering techniques are associated with observation; in the Illinois local evaluation, standard measures and narratives are direct data sources used to obtain a comprehensive picture of each classroom. Indirect data pertaining to teacher beliefs and activities related to developmentally appropriate practice, obtained through group interviews with teachers, individual interviews with principals, and surveys are also included in the local evaluation design, but are outside of the scope of this paper.

The Assessment Profile for Early Childhood Programs- Research Version (Abbott-Shim & Sibley 1992), a classroom observation tool that is part of the national core data set, is designed to tap five components of developmentally appropriate practice: learning environment; scheduling; curriculum; interacting; and individualizing. It is a dichotomous, discrete-point scale that is completed during observation time. Evaluators at the Illinois site were trained together on the administration of this instrument and reached inter-rater reliabilities in the .92-.96 range. In conjunction with the Profile, a teacher interview is scheduled, outside of the observation time, to collect related data that are not directly observable.

For the past two years, the evaluators at the Illinois site have augmented the Profile with other local measures in order to obtain a richer, fuller description of classrooms and instructional practices. These data sources include: 1. an observation checklist; 2. overview of the school and classroom observation narratives; and 3. a multidimensional matrix, A Developmentally Appropriate Practice Template, **ADAPT**, (Gottlieb,

1994). In this section, each local measure is briefly described along with its contribution to the measurement of developmentally appropriate practice.

The **observation checklist** (see Appendix A), consisting of twenty-five items, examines those qualities of developmentally appropriate practice emphasized by the local program that are idiosyncratic to the Illinois site. To ensure content validity, items were generated by the co-principal investigators and reviewed by the Project's Evaluation Advisory Board. Topics address the roles of the teacher and children, the physical environment, instructional activities, classroom-based assessment, and the treatment of linguistically and culturally diverse children.

The **classroom narratives** (see Appendix B) are based on responses to six areas of questioning: 1. the classroom learning environment; 2. scheduling; 3. instruction; 4. interaction; 5. individualizing; and 6. the overall impression of the teacher and classroom. They provide a qualitative perspective of developmentally appropriate practice. These anecdotal notes, recorded during classroom observation, complement the quantitative data of the Profile and observation checklist by offering examples for each defined area. In addition to classroom data, a brief narrative about the school environment and community contextualizes the evaluation.

Initially designed as an overall summary measure of developmentally appropriate practice for classrooms in the Illinois study, in 1994 **ADAPT** was adopted by the National Transition Consortium as an optional instrument (see Appendix C for a listing of its dimensions). It is holistic in nature, consisting of a series of developmental or descriptive continuua with criteria outlined along a five point rating scale. In addition to the classroom summary, the matrix consists of eighteen process-oriented dimensions within three domains: 1. curriculum and instruction; 2. interaction; and 3. classroom management. Anchor descriptors at either end of a continuum are used to stabilize the expressed range of each dimension.

This paper specifically reports findings from three sources of the spring 1994 Illinois data set: the observation checklist, the classroom narratives, and the **ADAPT** measure. In addition, it documents work in progress in the development and validation of **ADAPT**. Concurrently, it examines the extent of implementation of developmentally appropriate practice in early childhood classrooms.

Analysis of Data:

a. Observation Checklist

In Spring 1994 data were gathered on the twenty-five items, as part of the local classroom observation package. The entire sample of target and comparison classrooms, and a sample of Head Start classrooms were assessed. Mean scores and t tests were calculated by item to compare target and comparison classrooms.

b. Classroom Narratives

Six topics were addressed in the narratives, along with an overall developmentally appropriate practice rating based on a five-point scale. Responses to each topic were coded by attributes that emerged from the descriptive data. Descriptive statistics and a t-test of the overall developmentally appropriate practice rating were calculated to compare target and comparison classrooms.

c. Psychometric Properties of **ADAPT**

An analysis of **ADAPT's** reliability and validity was based on data gathered during the national training of lead data collectors and principal investigators (N= 68) from twenty-one Transition sites throughout the country. Item analysis test score statistics for the total instrument of 18 dimensions and the summary yielded an internal reliability of .97 (Spearman-Brown) and split-half correlation of .94. These statistics indicate that **ADAPT** is a consistent, stable measure.

An inter-rater reliability of .85 or above is preferred to attribute differences to classroom variations rather than to the deviations in scoring. Initial inter-rater reliability on **ADAPT** on all 19 items yielded 69.3%, with that for the single overall classroom rating at 79.4% These results suggest the need for extensive training on this instrument; a greater degree of consensus must be reached on the definition of terms and criteria. It should be noted, however, that the raters had no prior exposure to the instrument and there were limited trial opportunities.

Descriptive statistics of the pilot test version for **ADAPT** are presented in Table 2 below. The mean scores for the total measure as well as for each of the domains approached the midpoint of the 5 point scale, and standard deviations ranged from .75 -.85, indicating that the instrument measures a sufficient range of behaviors.

Table 2

ADAPT Pilot Test: Descriptive Statistics for Domains and Total Measure (N= 68)

Statistic	Total Test	Domain 1	Domain 2	Domain 3
N of Items	19	6	6	6
Mean Score	2.55	2.35	2.80	2.50
Standard Deviation	.78	.82	.75	.85
Maximum	4.32	4.50	4.33	4.17
Minimum	1.11	1.00	1.17	1.17

ADAPT is based on developmental psychological and constructivist educational theory, giving it construct validity. Further, the correlation of the overall developmentally appropriate practice rating with the summed average of the eighteen rating dimensions of the measure is .92, suggesting the validity of the individual rating dimensions. The review of the instrument by experts in the field, the author's classroom experience, and professional development work with teachers and schools regarding best practices lend practicality to the measure, thus strengthening to its content and face validities.

Results:

Preliminary findings for classroom observation after two full years of program implementation (Year 3 of the study) suggest that there is a range of developmentally appropriate practice in both target and comparison classrooms. As a whole, target classrooms are further along the developmental continuum and have moved away from traditional, skill-based, structured, teacher-directed instruction. Furthermore, target classrooms display evidence of Project involvement which are reflected in the arrangement of the classroom's physical space and in the use of instructional materials and resources. Specific findings from the three primary data sources: the Observation Checklist, the Classroom Narratives, and **ADAPT** are presented in the next section.

Findings:

a. Observation Checklist

The t-test comparisons on four of the twenty five items indicate statistically significant differences between the target and comparison classrooms. Two additional items approach significance; in all cases, the target classroom ratings exceed those of the comparison group. This finding suggests that target classrooms are exhibiting developmentally appropriate practice to a greater extent than are comparison classrooms. The significantly different items suggest distinctions in the way students interact and the types of instructional activities offered. They are presented in Table 3 and described below:

Table 3

Additional Classroom Observation Items: Spring 1994

	Target Teachers (N=34)		Comparison Teachers (N=31)		
Item Number	$\bar{X}$	SD	$\bar{X}$	SD	t
1	1.6	0.5	1.2	0.4	3.71***
2	1.6	0.5	1.3	0.4	3.36***
3	1.7	0.4	1.5	0.5	2.40*
4	1.4	0.5	1.2	0.4	2.02*
5	1.5	0.5	1.3	0.5	1.69a
6	1.4	0.5	1.2	0.4	1.85a

Item Number	P Value
1. Listening activities and materials based on learning needs of children.	≤.001
2. Students encouraged to talk with each other.	≤.001
3. Activities appropriate for wide range of ability levels of children.	≤.05
4. Students work in small groups on projects that provide rich content for conversation.	≤.05
5. Teacher facilitates as well as leads activities.	≤.10
6. Curriculum is developmentally appropriate and student-centered.	≤.10

b. Classroom Narratives

A total of nineteen features emerge from the descriptive classroom data in four areas: 1. the learning environment; 2. scheduling; 3. interaction; and 4. individualizing. In addition, from the fifth area, instruction, rich data are obtained that paint pictures of diverse classroom activities. (A series of classroom vignettes, reflective of instructional activities ranked by level of developmentally appropriate practice from one to five, are included in the Appendix D). Characteristics of emerging developmentally appropriate practice in classrooms are identified in the observer's overall impression of the classroom.

In the analysis of the learning environment, four features are highlighted: 1. support for developmentally appropriate practice; 2. physical space and arrangement; 3. teacher's role in instruction; and 4. general classroom climate. Clearly in target classrooms, developmentally appropriate practice is more strongly evident than in comparison classrooms. Support for this finding is drawn from the multiple configurations of space, with learning centers being present twice as often in target classrooms, the target teacher's role being defined more as a manager and facilitator than a director, and a greater number of target classrooms with a positive atmosphere. Table 4, on the following page, identifies features of the learning environment and the number of target and comparison classrooms associated with each. Not all classrooms in the study are represented in the total as indicated by the not observed column; only those specifically mentioned in the narrative by the evaluators are included in the target/comparison count.

Table 4

Learning Environment Features: Evidence in Target and Comparison Classrooms

N of CLASSROOMS (%)

CONDITION / FEATURE	TARGET	COMPARISON	TARGET	COMPARISON	NOT OBSERVED T /C
Support for DAP	YES 25 (65.8%)	YES 10 (32.3%)	NO 7 (18.4%)	NO 14 (45.2%)	7/7 (15.8%/ 22.5%)
Physical Space	ROWS 0 (0.0%)	ROWS 4 (12.9%)	CENTERS /OTHER 12/22 (31.6%/ 57.9%)	CENTERS/ OTHER 6/13 (19.3%/ 41.9%)	4/8 (10.5%/ 25.9%)
Teacher's Role	D* 10 (26.3%)	D* 17 (54.8%)	M*/F* 10/4 (26.3%/ 10.5%)	M*/F* 5/0 (16.1%/0%)	14/9 (36.9%/ 29.1%)
Climate	+ 13 (34.2%)	+ 4 (12.9%)	- 0 (0.0%)	- 4 (12.9%)	25/23 (65.8%/ 74.2%)

D* = Director; M* = Manager; F* = Facilitator

The support for developmentally appropriate practice within the context of the learning environment resides in the availability and accessibility of manipulatives and materials to children, the presence of a variety of tasks and projects, and the amount of children's input in the instructional cycle. Further, more target classrooms were observed to have warm, purposeful learning environments that encourage learning than were comparison classrooms; four (12.9%) of the latter's learning environments were rated as having a negative impact on student learning. Traditional rows of desks, absent in target

classrooms, are present in 12.9% of the comparison ones. Many configurations are observed in kindergarten and grade one classrooms that promote student interaction, including groups of desks grouped together to form tables or the use of tables exclusively in the shape of the letters E, U, or L.

Four features fall in the classroom scheduling category: 1. a posted written schedule; 2. a lesson or instructional plan; 3. an underlying purpose; and 4. flexibility in execution. Although the majority of teachers in target and comparison classrooms (over 75%) have planned instruction, a clear-cut purpose is more discernible in target classrooms, which tend to center more on the needs and interests of the children than on maintaining the rigidity of a structured schedule. Table 5, below, lists the features associated with scheduling and the percentage of classrooms in which features are present.

Table 5

Scheduling Features: Evidence in Target and Comparison Classrooms

N OF CLASSROOMS (%)

CONDITION --- FEATURE	TARGET	COMPARISON	TARGET	COMPARISON	NOT OBSERVED T/C
Posted written schedule	YES 9 (23.7%)	YES 5 (16.1%)	NO 10 (26.3%)	NO 15 (48.4%)	19/11 (50.0%/ 35.5%)
Instructional plan	YES 30 (78.9%)	YES 24 (77.4%)	NO 2 (5.3%)	NO 1 (3.2%)	6/6 (15.8%/ 19.4%)
Purpose	YES 23 (60.5%)	YES 12 (38.7%)	NO 1 (2.6%)	NO 1 (3.2%)	14/18 (36.9%/ 58.9%)
Flexibility	YES/SOME 23 (60.5%)	YES/SOME 14 (45.2%)	NO 6 (15.8%)	NO 12 (38.7%)	9/5 (23.7%/ 16.1%)

Three features related to the interactional patterns between teachers and students, student and student, and among students are identified in Table 6 on the next page. Even though approximately the same percentage of classrooms appear teacher-directed, formal, business-like, and controlled across conditions, twice as many target as comparison classrooms are described by teacher/student interactions as warm, encouraging, caring, personal, or informal. The relationships among children appear to mirror those between the teacher and child; student/student interaction in target classrooms is characterized as respectful, friendly, comfortable, relaxed, and positive twice as often as in the comparison counterparts. Cooperation and sharing among children in target classrooms appears slightly higher (31.6%) than in comparison classrooms (25.8%); however, lack of cooperation or emphasis on children's independent learning is clearly more visible in comparison settings (32.3% versus 5.3%).

Table 6

Interaction Features: Evidence in Target and Comparison Classrooms

N OF CLASSROOMS (%)

CONDITION --- FEATURE	TARGET	COMPARI-SON	TARGET	COMPARI-SON	NOT OBSERVED T/C
Informal teacher/ student	YES 19 (50.0%)	YES 8 (25.8%)	NO 15 (39.5%)	NO 11 (35.5%)	4/12 (10.5%/ 38.7%)
Warm, accepting student/student	21 (55.3%)	7 (22.6%)	5 (13.2%)	8 (25.8%)	12/16 (31.5%/ 51.6%)
Cooperation of children	12 (31.6%)	8 (25.8%)	2 (5.3%)	10 (32.3%)	24/13 (63.1%/ 41.9%)

Individualizing features relate to the teacher's use of assessments. Three distinct ways of documenting children's performance are noted in Table 7 on the next page: 1. the use of portfolios or student folders; 2. the integration of instruction and assessment; and 3. the teacher's provision of oral or written feedback. In all instances, these assessment techniques are more often found in target classrooms than comparison ones. For example, one target teacher was observed taking anecdotal notes,

a feature of developmentally appropriate practice, and one comparison teacher was observed testing, using a multiple-choice format, during the data collection period.

Table 7

Individualizing Features: Evidence in Target and Comparison Classrooms

N OF CLASSROOMS (%)

CONDITION / FEATURE	TARGET	COMPARISON	NOT OBSERVED T/C
Use of Portfolios	11 (28.9%)	6 (19.4%)	27/25 (71.1%/ 80.6%)
Ongoing Assessment	5 (13.2%)	2 (6.5%)	33/29 (86.8%/ 93.5%)
Oral/Written Feedback	10 (26.3%)	6 (19.4%)	28/25 73.7%/ 80.6%)

The general category, overall impression, offers the evaluators the opportunity to reflect upon the classroom as a whole regarding evident or emerging developmentally appropriate practice. The following list of six characteristics illustrates commonalities of developmentally appropriate practice across target and comparison classrooms:

a. a variety of learning centers;
b. a range of manipulatives;
c. physical environment conducive to learning;
d. student choice encouraged;
e. peer interaction promoted;
f. active, involved learners.

In addition to the elements outlined above, a unique set of characteristics emerges from the data that defines what constitutes developmentally appropriate practice in primary classrooms. These characteristics include:

a. supportive adults working with children on cognitive, motor, and social skills;
b. children approaching each task with interest;
c. value in informal learning and play;
d. creative thinking rewarded;
e. awareness of linguistic needs of language minority

children;
f. use of music to smooth transition between activities;
g. fewer whole group activities;
h. hands-on learning;
i. children working at their own pace;
j. tasks relevant to children's lives;
k. tasks completed in a risk-free environment;
l. children challenged to learn;
m. thematic instruction with integration of language and content;
n. children encouraged to think independently, yet teach others;
o. activities appeal to a variety of learning styles;
p. children having input in the instructional process;
q. children handling real-life materials;
r. children representing a community of learners;
s. children's interests taken into consideration.

Equally important in the documentation process is to note what is not developmentally appropriate practice. It appears from the observational data that the major elements impeding implementation is maintenance of the traditional role of the teacher as the director of learning and to a lesser extent, teacher expectations of uniform projects and products from children. Teacher beliefs and personal philosophies are wrapped up in these dual elements that touch the core of what is teaching and require extended time to alter.

Evidence of Project involvement distinguishes target from comparison classrooms. Examples include monthly displays of word banks supplied by the Transition Education Facilitator, a Project-sponsored nutrition newsletter, the use of soft light from lamps, music to work by, and a home center equipped with a rug and rocking chair.

c. **ADAPT**

The final item of the classroom narrative, which quantifies the level of implementation of developmentally appropriate practice, has evolved over the past year into the classroom summary of **ADAPT**. The initial attempt to categorize classrooms in spring 1994 according to a set of criteria reveals differences between the target and comparison groups. The majority of comparison classrooms (80.7%) are at the lower end of the continuum at levels one and two, whereas a significant percent of target classrooms (73.7%) exhibit more developmentally appropriate traits at levels two and three. Except for the one outlier at level five, no comparison classroom exceeds level three on the scale; in contrast, 15.8% of target classrooms are ranked level four. Table 8, which follows, shows the frequency distribution of the overall rating level by study condition.

Table 8

Classroom Summary of Developmentally Appropriate Practice: Frequency Distribution of Rating Level by Condition

	Level 1	Level 2	Level 3	Level 4	Level 5	Total N
Target	4 (9.5%)	18 (47.4%)	10 (26.3%)	6 (15.8%)	0 (0.0%)	38 (100.0%)
Comparison	14 (45.2%)	11 (35.5%)	5 (16.1%)	0 (0.0%)	1 (3.2%)	31 (100.0%)

A t-test comparison between the two groups indicates that in spring 1994, target classroom ratings are significantly ($p \leq .01$) higher ($\bar{X}= 2.73$; S.D.= .9) on the overall developmentally appropriate practice scale than are comparison classrooms ($\bar{X}= 2.14$; S.D.= .95). Using Head Start classrooms as a barometer of or the criterion for developmentally appropriate practice, their mean rating ($\bar{X}= 3.35$; S.D.= .5) is the highest among the three groups. This finding suggests concurrent validity, and confirms the qualitative results of the classroom narratives.

Educational Significance:

Classroom observations within the National Transition Project serve to define and document the extent of use of developmentally appropriate practice in early childhood, from preK through grade one classrooms. Data from this study form the basis for comparison across classrooms, and suggest reliable and valid ways of examining classrooms. The information obtained after two years of program implementation in at the Illinois site describes how teachers can redesign learning experiences and environments of young children in order to reach the first national educational goal by the year 2000.

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School/Center: _____

Additional Classroom Observation Items

		Teacher Code:		
1.	There is a clear point to the lesson (goal of teacher can be identified).			
2.	Environment supports learning through play.			
3.	Activities are appropriate for a wide range of ability levels of children.			
4.	Curriculum includes extended learning activities (related activities over a multi-week period).			
5.	Teacher facilitates as well as leads learning activities.			
6.	Children manage their own behavior without requiring teacher intervention.			
7.	Activities are relevant to the children's own life experiences.			
8.	The physical space is safe, clean, attractive and spacious.			
9.	Subject areas are integrated—there is not a set time for each subject area.			
10.	Listening activities and materials are based on the learning needs of children.			
11.	Tasks are completed in a risk-free environment.			
12.	Teacher acts in a manner of increasing student self-esteem, regardless of student behavior.			
13.	Teacher facilitates development of self-control in children.			
14.	Teacher gives children enough time to answer questions.			
15.	Students are encouraged to talk with each other as well as with the teacher.			
16.	Students work in small groups on projects that provide rich content for conversation.			
17.	Word banks are visible in classroom.			
18.	Student portfolios are visible and accessible to children.			
19.	Children's language and culture are respected.			
20.	Children's language and culture are interwoven into the curriculum.			
21.	Instructional strategies are modified to accommodate the linguistic needs of the children.			
22.	Children from linguistically and culturally diverse families are encouraged to use their first language as well as English.			
23.	Teacher capitalizes on the children's linguistic and cultural backgrounds to facilitate learning.			
24.	Assessment occurs within the context of instruction.			
25.	Curriculum is developmentally appropriate and student-centered.			

Appendix B

Project TRANSFER Evaluation:
Classroom Observation Narratives
Spring 1994

1. Describe the overall learning environment of the classroom; is it an environment that encourages student learning? Is it the type of environment that supports developmentally appropriate practice?

2. Scheduling: Does the teacher have a plan? Is there a planned purpose to what you see happening in the classroom? Is scheduling flexible?

3. Instruction: Describe overall instruction. Is the type of instruction compatible with developmentally appropriate practices? Did you see anything that might be attributed to Project involvement? Is whole language instruction observed? Are computers used? Is there a computer in the classroom? How many?

4. Interaction: Describe overall teacher-student and student-student interactions. Do interactions support developmentally appropriate practice? Do students work cooperatively?

5. Individualizing: Describe teacher's use of assessments.

6. What is your overall impression of this teacher and his/her classroom? Would you describe this as a more traditional classroom or a more developmentally appropriate classroom? Did you see any evidence of Project TRANSFER in this classroom?

7. Rating of Developmentally Appropriate Practice

Dimensions of A Developmentally Appropriate Practice Template (ADAPT)

I. CURRICULUM AND INSTRUCTION: PROMOTING CHILDREN'S ACADEMIC DEVELOPMENT

- A. Purpose
- B. Organization
- C. Content/Focus
- D. Literacy Development
- E. Cognitive Involvement of Children
- F. Multiculturalism

II. INTERACTION: SUPPORTING CHILDREN'S SOCIAL AND EMOTIONAL DEVELOPMENT

- A. Child-Child
- B. Child-Teacher
- C. Child-Materials
- D. Children's Affect
- E. Classroom Learning Style/Instructional Context
- F. Classroom Climate

III. CLASSROOM MANAGEMENT: FACILITATING CHILDREN'S OVERALL DEVELOPMENT

- A. Physical Elements: Space and Arrangement
- B. Materials/Resources
- C. Grouping/Relationship with Task
- D. Cooperative Learning
- E. Children's Self-regulation
- F. Time/Integration of Learning

IV. CLASSROOM SUMMARY OF DEVELOPMENTALLY APPROPRIATE PRACTICE

Margo Gottlieb Illinois Resource Center/OER Associates 1995

Appendix D

Vignettes Describing the Levels of Implementation of Developmentally Appropriate Practice according to A Developmentally Appropriate Practice Template

LEVEL 1 NO EVIDENCE

The children are seated at their desks with a math ditto sheet. The teacher is standing, directing the lesson; she systematically moves from one problem to the next. She facilitates multiple approaches to problem-solving by asking children different ways to arrive at the solution. Individual children are called to the front board by the teacher to write their answers. The process is repeated for each problem. No manipulatives are used.

LEVEL 2 MINIMAL EVIDENCE

The children are seated at tables, each with a geoboard and a worksheet. The teacher rotates the room, assisting individual children transform the patterns onto the paper. When they complete the activity, the children receive another math worksheet. At the end of the day, the children sit on the floor in front with the teacher on a chair. The teacher displays, one-by-one, the maps made by the children after their neighborhood walk; each child has an opportunity to describe their own.

LEVEL 3 EMERGING EVIDENCE

The children are seated along a long, L shaped table. The teacher announces that they are going to make a card for a child in the room who has chicken pox. She has a flip chart and writes down some of the words children may use. Children are encouraged to draw and write a note to the sick child. Upon completion, children select centers, under the direction of the teacher. The teacher describes which centers are available, describes the activities the children are to pursue, and distributes children according to their choice.

LEVEL 4 SUPPORTIVE EVIDENCE

The whole group sits on a rug while the teacher reads The Carrot Seed. The group then listens to the story from a recording while the teacher shows illustrations from the book. The children, in small rotating groups, view carrot seeds with a floor magnifying glass and comment on their size. The greenhouse or garden center has dirt, cups, and carrot seeds; the teacher models planting the seeds. A paraprofessional takes children in small groups while the teacher turns to a large laminated carrot and writes down what the children know about the vegetable. Children go back to their tables and glue 'c' pictures they have brought from home into their journals. The teacher reminds the children that they can ask each other, the teacher, or the aide for help. A parent volunteer works with individual children at the computer using "Wooley's Garden".

LEVEL 5 STRONG EVIDENCE

The children are working on various activities pertaining to their museum exhibit. Some are completing a booklet, in the shape of a rock, about their selected rock. Some children are designing their cover while others are exploring books related to the topic. Lots of materials are accessible to the children to do their research. In addition to the project, the teacher works with a small reading group; other children work on other activities independently or at the computer.